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WHAT IS CLAIMED IS:

5 1. A metal alloy for the manufacture of cathodes
for cathode-ray tubes, comprising mainly nickel,
wherein said alloy includes magnesium (Mg), the weight
concentration C_{Mg} of which is between 0.01% and 0.1%.

2. The metal alloy according to Claim 1, wherein
said alloy also includes aluminium, the weight
concentration C_{Al} of which satisfies the relationship:

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$$C_{Al} \leq 0.14 \times (0.1 - C_{Mg}).$$

15 3. The metal alloy according to Claim 1, wherein
said alloy also contains aluminium and in that, after
the cathode has been activated, the percentage of the
surface of the alloy below an emissive layer of the
cathode covered by stable crystallites is less than or
equal to 3%.

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4. A cathode comprising a basis metal which is a
metal alloy according to Claim 1, wherein an emissive
part consists of a layer of alkaline-earth oxides.

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5. A cathode-ray tube comprising at least one
cathode whose basis metal is a metal alloy according to
Claim 1.

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